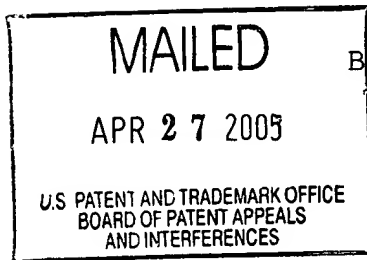


The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE



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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte SUNNY BEHL

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Appeal No. 2005-0460  
Application No. 09/775,881

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ON BRIEF

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Before KIMLIN, PAK and JEFFREY T. SMITH, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-20.

Claims 1, 7 and 19 are illustrative:

1. A device for removably mounting a hard disk drive in a memory storage housing, comprising:

a carrier for holding a hard disk drive, the carrier being removably mountable in a memory storage device housing; and

a heat sink mounted on the carrier.

7. A device for removably mounting a hard disk drive in a memory storage housing, comprising:

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a carrier for holding a hard disk drive, the carrier being removably mountable in a memory storage device housing; and

fins mounted on the carrier.

19. A device for removably mounting a hard disk drive in a memory storage housing, comprising:

a first means for holding a hard disk drive, the first means being removably mountable in the memory storage device housing; and

a second means for convective cooling mounted on the first means.

The examiner relies upon the following references in the rejection of the appealed claims:

Ende	4,642,715	Feb. 10, 1987
Wyler	5,510,954	Apr. 23, 1996
Lin	5,514,036	May 7, 1996
Chang	5,694,290	Dec. 2, 1997
Grouell	5,892,655	Apr. 6, 1999

Claims 1, 2, 5, 6, 13, 14, 17 and 18-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Chang. The claims on appeal also stand rejected under 35 U.S.C. § 103(a) as follows:

- (a) claims 3, 4, 15 and 16 over Chang in view of Lin;
- (b) claims 7 and 8 over Chang in view of Wyler or Ende; and
- (c) claims 9-12 over Chang in view of Wyler and Lin.

Appellant submits at page 4 of the Brief that "[a]ll claims at issue stand or fall together." Accordingly, the claims as

grouped by the examiner in the separate rejections stand or fall together.

We consider first the examiner's rejection of claims 1, 2, 5, 6, 13, 14, 17 and 18-20 under § 102 over Chang. Claims 1, 2, 5, 6, 13, 14, 17 and 18 define a device for removably mounting a hard disk drive in a memory storage housing comprising, inter alia, a heat sink mounted on the carrier for holding the hard disk drive. The examiner takes the position that upper cover 60 of Chang meets the claim requirement for a heat sink. The examiner accepts appellant's definition of a heat sink as a device that absorbs and dissipates heat, and maintains that element 60 of Chang meets this definition by being a device comprising slots which "enhance the dissipation of heat of the hard disk," citing column 4, lines 3-4 of the reference (page 5 of Answer, lines 1-3). However, while Chang teaches that the slots of element 60 enhance the dissipation of heat, the examiner seems to ignore the other requirement for a heat sink, namely, that it absorb heat. The examiner has pointed to no teaching in Chang that supports the conclusion that the reference describes element 60 as a heat absorbing material. Although the examiner states that Chang "nowhere suggests plastic as the material for element 60 or the carrier" (page 5 of Answer, second paragraph),

it is the examiner's burden in the first instance to establish that Chang describes all the features of the claimed invention within the meaning of § 102. Here, the examiner has not satisfied his burden of demonstrating that Chang describes element 60 as an element which dissipates and absorbs heat. Consequently, we are constrained to reverse the examiner's § 102 rejection of claims 1, 2, 5, 6, 13, 14, 17 and 18.

Claims 19 and 20 do not require a heat sink. Rather, the claims call for a convective cooling means mounted on the means for holding a hard disk drive. The requirements of claims 19 and 20 seem to have been overlooked by appellant who argues "Claims 1, 2, 5, 6, 13, 14, 17, and 18-20 are allowable over Chang since Chang neither teaches nor suggests a heat sink mounted on a carrier for holding a hard disk drive" (page 6 of Brief, second paragraph, emphasis added). Since appellant acknowledges that cover 60 of Chang "includes ventilating slots 62" (page 4 of Brief, penultimate paragraph), we find that Chang describes means for convective cooling on the holder for the hard disk drive. Accordingly, we will sustain the examiner's § 102 rejection of claims 19 and 20.

Concerning the examiner's § 103 rejection of claims 3, 4, 15 and 16 over Chang in view of Lin, Lin's disclosure of a removable

filter does not remedy the deficiency of Chang discussed above. Hence, we cannot sustain this rejection.

We will sustain the examiner's § 103 rejection of claims 7 and 8 over Chang in view of Wyler or Ende. Claim 7 does not require a heat sink but, rather, fins mounted on the carrier for holding a hard disk drive. While claim 8 further recites a heat sink including fins mounted on the carrier, both Wyler and Ende disclose such a finned heat sink for a holder of hard disk drives. Accordingly, we find that it would have been obvious for one of ordinary skill in the art to select a heat absorbing material for cover 60 of Chang and to further incorporate fins in the cover 60 to enhance the dissipation of heat. We are satisfied that one of ordinary skill in the art, based on the collective teachings of the prior art, would have found it obvious to employ a finned heat sink for the carrier of a hard disk drive, as presently claimed. Appellant contends that "no teaching, suggestion, or motivation in the cited art as to how such a conductive heat path would be advantageous in the carrier of Chang which is taught to already include ventilating slots 62" (page 8 of Brief, first paragraph). However, we are confident that it would have been obvious to one of ordinary skill in the art that the ventilating slots 62 could be substituted for a

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finned heat sink material, or that the heat dissipation can be improved by adding fins to the cover 60 of Chang made from a heat absorbable material. Manifestly, both Wyler and Ende evidence that it was known in the art to use finned heat sinks to remove heat from the housing of hard disk drives.

We will also sustain the examiner's § 103 rejection of claims 9-12 over Chang in view of Wyler and Lin for the reasons set forth above in conjunction with our agreement with the examiner that Lin evidences the obviousness of including an air filter on the face of the carrier.

We note that appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results.

This application is remanded to the examiner to consider a § 103 rejection of claims 1-6 and 13-18 over the combined teachings of Chang, Wyler, Ende and Lin in view of the reasoning set forth in this opinion.

In conclusion, the examiner's § 102 rejection of claims 1, 2, 5, 6, 13, 14, 17 and 18 is reversed, as is the examiner's § 103 rejection of claims 3, 4, 15 and 16. The examiner's § 103 rejections of claims 7, 8 and 9-12 are affirmed. Accordingly, the examiner's rejection of the appealed claims is affirmed-in-part. Also, the application is remanded to the examiner for

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consideration of a rejection of claims 1-6 and 13-18 under  
35 U.S.C. § 103.

In addition to affirming the examiner's rejection of one or more claims, this decision contains a remand. 37 CFR § 41.50(e) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)) provides that:

Whenever a decision of the Board includes a remand, that decision shall not be considered final for judicial review. When appropriate, upon conclusion of proceedings on remand before the examiner, the Board may enter an order otherwise making its decision final for judicial review.

Regarding any affirmed rejection, 37 CFR § 41.52(a)(1) provides "[a]ppellant may file a single request for rehearing within two months from the date of the original decision of the Board."

The effective date of the affirmance is deferred until conclusion of the proceedings before the examiner unless, as a mere incident to the limited proceedings, the affirmed rejection is overcome. If the proceedings before the examiner do not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejections, including any timely request for rehearing thereof.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED-IN-PART AND REMANDED

  
EDWARD C. KIMLIN )  
Administrative Patent Judge )

  
CHUNG K. PAK )  
Administrative Patent Judge )

BOARD OF PATENT  
APPEALS AND  
INTERFERENCES

  
JEFFREY T. SMITH )  
Administrative Patent Judge )

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